1 each individual UPS module (10)(101-10N) can be monitored in real time.

2 Since the foregoing different types of signal wires actually connect

3 among these parallel UPS modules (10)(101-10N), the entire power system is

4 controlled by a technique called "wired-connected mode".

5 With reference to Figs. 7A-7B, when all UPS modules (10)(101-10N)

6 are controlled under the wired-connected mode, each UPS module (10) still has

7 the inverter (11), the PWM driver (12), the inductor current detector (13), the

8 output voltage detector (14), the load current detector (15) and the control unit

9 (30) as shown in Figs. 5A-5B. Furthermore, all load current detectors (15) are

10 connected via share current circuits (16) and the load sharing wire (21), wherein

11 the controlling of all parallel UPS modules (10-10N) are dependent upon the

12 current information detected by the share current circuits (16).

13 Since the wire-connected mode is not the objective of the present

14 invention, the related detailed description is omitted hereinafter.

15 In order to improve the reliability of the parallel power system and to

16 obviate the problem of single point failure that might otherwise occur in a

17 situation wherein the control signals communication fail, the present invention

18 adopts a connectionless (wireless) mode. The connectionless mode utilizes the

19 droop method and the simulated P-$\omega$ and Q-V slope lines, to accomplish the

20 phase locking and current sharing.

21 Based on the foregoing description related to the parallel connectionless

22 operation in the background of the invention, a premise to accomplish the

23 connectionless operation is that the output of the UPS module must be coupled

24 with a large inductor in series. However, the coupled inductor would cause the

10